

# Hyalite Queue Specification

## Overview

The current queue settings do not allow for the workload manager to make scheduling decisions, so multi-node jobs are not running if the cluster is full. If the jobs had time limits associated with them, the workload manager could determine when sets of jobs will complete and be able to backfill jobs appropriately.

## Queue Settings

### Queue Descriptions

- Defq: The default queue for all users.
- Priority: The priority queue for contributing users. Priority queue jobs are added to the front of the queue and can run longer and on more nodes. There are fewer nodes in the priority queue to allow default queue jobs to run even if there is a deep priority queue.
- Express: Queue for testing and short jobs.
- Admin: Queue for administrative jobs (backups, etc).

### Current Queue Settings

NAME	NODES	PRIORITY	ACCESS	TIME	NODES
<b>DEFQ</b>	Compute[003-044]	0	All	15:00,24:00:00	1,8
<b>PRIORITY</b>	Compute[003-036]	10000	Contributors	15:00,72:00:00	1,all
<b>BIGJOB</b>	Compute[003-044]	10000	On Request	30 days	1,8
<b>EXPRESS</b>	Compute[001-002]	0	All	30:00	1,all
<b>ADMIN</b>	Compute[001-002]	10000	root	2:00:00	1,all

### Notes

- BigJob queue would be added for longer jobs, access would be granted for a limited time based on user need.
- Time is listed as “default time, max time”
- Nodes are listed as “default nodes, max nodes”
- The reason that the default time is only 15 minutes is that if a user forgets to put a time limit into their job, they will only waste 15 minutes of computation instead of more.
- The express queue needs at least two nodes to test MPI job functionality